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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 09/753,339 | 12/29/2000 | Lyndon Y. Ong | 61473/0269205 | 8404 |
| 34845 7590 03/16/2007 McGUINNESS & MANARAS LLP 125 NAGOG PARK ACTON, MA 01720 | | | EXAMINER ELALLAM, AHMED | |
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| | | | 2616 | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/753,339

Applicant(s)

ONG, LYNDON Y.

Examiner

AHMED ELALLAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8-11 is/are pending in the application.
- 4a) Of the above claim(s) 8-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office communication is responsive to amendment filed on 12/27/2006. The amendment has been entered.

Claims 1, 3-6 are pending. Claims 2, 7 are cancelled, and claims 8-13 are withdrawn.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 4 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Ludwig, US 6,754,228.

Regarding claim 1, Ludwig discloses a prior art method of controlling congestion in a communication network, the method comprising:

Controlling traffic emitted into a connection between a sender and a receiver in accordance with the minimum of congestion window size and an advertised window size, see column 6, lines 17-22, the advertised window corresponds to the input buffer capacity on the receiver side, see column 1, lines 59-62 and column 4, lines 31-59, (Examiner interpreted the congestion window as being the traffic that can be sent prior to receiving acknowledgment, and that correspond to the claimed unacknowledged traffic).

Ludwig further discloses that the advertised window is determined by the receiver, whereas the congestion window is determined by the sender, the congestion window is flow and is based on the sender's assessment of perceived network congestion control imposed by the sender, see column 4, lines 60-67.

Ludwig also discloses assessment of perceived network congestion control imposed by the sender by calculating a usable window (data that can be sent) as the difference between the total window size and the data that has been sent but not acknowledged, see column 3, lines 10-14. (Examiner interpreted this later feature of Ludwig to correspond to the claimed detecting a network congestion condition in response to an occupancy threshold of a transmit buffer of the sender).

Ludwig discloses that a window size is calculated in dependence of bandwidths, see column 6, lines 17-22 (the connection of Ludwig has a fixed bandwidth as evidenced by incorporation into the calculation of the window size, moreover connections have fixed bandwidth imposed by hardware design).

Regarding claim 4, Ludwig discloses assessment of perceived network congestion control imposed by the sender by calculating a usable window (data that can be sent) as the difference between the total window size and the data that has been sent but not acknowledged, see column 3, lines 10-14. (Examiner interpreted this later feature of Ludwig to correspond to the claimed detecting a potential congestion in a connection between a source node and a destination node in the communication network). Ludwig also discloses that a window size is calculated in dependence of bandwidths, see column 6, lines 17-22 (the connection of Ludwig has a fixed

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bandwidth as evidenced by incorporation into the calculation of the window size, moreover connections have fixed bandwidth imposed by hardware design). (Claimed connection having a desired bandwidth). Ludwig also discloses controlling traffic emitted into a connection between a sender and a receiver in accordance with the minimum of congestion window size and an advertised window size, see column 6, lines 17-22, the advertised window corresponds to the input buffer capacity on the receiver side, see column 1, lines 59-62 and column 4, lines 31-67, (Examiner interpreted the congestion window as being the traffic that can be sent prior to receiving acknowledgment, and that correspond to the claimed unacknowledged traffic). (Claimed upon detection of the potential congestion condition, controlling new traffic emitted into the connection to be no more than the lesser of a current unacknowledged traffic load at the source node of the network at the time of detection and a receive buffer size of the receiving node).

Regarding claim 6, Ludwig discloses assessment of perceived network congestion control imposed by the sender by calculating a usable window (data that can be sent) as the difference between the total window size and the data that has been sent but not acknowledged, see column 3, lines 10-14. (Claimed detecting whether a congestion condition is present in response to an occupancy threshold of a transmit buffer of a sending node of the communication network), Ludwig also discloses that a window size is calculated in dependence of bandwidths, see column 6, lines 17-22, and controlling traffic emitted into a connection between a sender and a receiver in accordance with the minimum of congestion window size and an advertised

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window size, see column 6, lines 17-22, the advertised window corresponds to the input buffer capacity on the receiver side, see column 1, lines 59-62 and column 4, lines 31-67, (Claimed when a congestion condition is present, setting a congestion window to a prescribed value, wherein the prescribed value is the lesser of a current amount of unacknowledged traffic emitted by the sending node into the network at time of detection of the congestion condition and a receiver buffer size at that time, and controlling traffic from the sending node delivered into the network so that the amount of unacknowledged traffic from the sending node doesn't exceed the congestion window size).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ludwig.

Regarding claims 3 and 5, Ludwig discloses having a flow of data from a sender to a receiver is controlled by automatically taking into account one or more bandwidth value associated with the connection. See column 9, lines 31-43. Ludwig also discloses that the value to be associated with a given link is the bandwidth of the physical connection corresponding to the link, and Ludwig disclosed that the physical

bandwidth can either be the absolutely maximum bandwidth that a specific link can offer, in which case the value is constant for a given link, or the maximum bandwidth under the prevailing conditions, see Column 9, lines 66-67 and column 10, lines 1-23

Therefore Ludwig discloses substantially all the limitations of claims 3 and 5, except it doesn't disclose the network been a private network.

However it would have been obvious to a person of ordinary person of skill in the art at the time the invention is made to implement the congestion control mechanism of Ludwig to a private network such as an Intranet so that bandwidth optimization can be provided in a similar manner as in the communication network of Ludwig, for example taking advantage of minimizing congestion applied to a private network. (Ludwig column 9, lines 44-53).

Response to Arguments

3. Applicant's arguments filed 12/27/2006 have been fully considered but they are not persuasive.

35 USC § 112:

The rejections under 35 USC § 112 have been withdrawn in view of the Amendment.

Claims 1, 4, and 6:

Applicants referred to passages from Ludwig reference, column 1, lines 54-57, column 4, lines 7-10, and line 40 plus. However Applicants didn't point out disagreement with the Examiner's contentions, Applicants didn't explain how the claims

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avoid the references or distinguish from them, and how the language of the claims distinguishes them from the references.

Examiner believes that, given the most reasonable interpretation of the claims limitations, the rejections above are maintained as being proper.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (571) 272-3097. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A. E
Examiner
Art Unit 2616
3/13/07

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